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REMARKS

Claims 1, 28, 42, 51, 53 and 63 have been amended. Accordingly, upon entry of the above amendments, claims 1, 4-14, 17-25, 28, 30-42, 44-51, 53, 55 and 58-65 will remain pending and under consideration in the above-identified application.

Rejection Under 35 U.S.C. §112

Claims 28, 30-42, 44-53 and 51 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. It is the Examiner's position that the specification sets forth operating the claimed device in a first or second mode, but does not set forth one mode excluding another mode.

Applicant's specification discloses (paragraph 35) that the device includes a vibration mode selector 18 that allows a user to operate the apparatus in either a communications mode to receive and/or transmit signals via communication signal receiver/transmitter 20 or in a diagnostic mode to detect or monitor neuropathy. Thus, the specification expressly discloses and teaches that the device may be operated either in a wireless communications mode or in a medical diagnostic mode. This necessarily infers that the device may be operated in a wireless communications mode to the exclusion of the medical diagnostic mode or in a medical diagnostic mode to the exclusion of the wireless communications mode. However, because the expression "either A or B" necessarily infers either A at the exclusion of B, or B at the exclusion of A, Applicant has amended claims 28, 42 and 51, consistent with the specification, to specify that the device may be selectively operated in either a first operational mode or a second operational mode, eliminating the redundant requirement that selection of the second mode is "to the exclusion of the first mode."

It is believed that the above amendments to claims 28, 42 and 51 overcome the rejection under 35 U.S.C. §112, by reciting limitations that are clearly supported in the original specification.

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Rejections Under 35 U.S.C. §103

Claims 1, 4-14, 17-25, 28, 30, 32, 34, 36-42, 44-47, 49, 51, 53, 55, 58 and 63 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over U.S. Patent No. 5,002,065 (hereinafter referred to as “LaCourse et al.”), in view of United States Patent Application Publication No. 2006/0152382 (hereinafter referred to as “Hiltunen”) and U.S. Patent No. 6,478,736 (hereinafter referred to as “Mault”).

The invention is directed to a portable multi-functional medical diagnostic and communications device, and to medical diagnoses methods employing such device. The invention incorporates a mode selector, a display and vibratory amplitude modulation features appropriate for detecting and quantifying neuropathy, within the housing of a portable wireless communications device, such as a cellular telephone. This combination of multiple functionality, portability, and the resulting convenience and economy achieved is not suggested by the prior art.

The LaCourse et al. reference is relied upon for disclosing a medical diagnostic apparatus having a vibratory component 103 that is capable of generating vibration of different magnitudes, and is capable of displaying the magnitude of the vibration. The Examiner has expressly stated that the LaCourse et al. reference fails to disclose a mode selector, portability, a cell phone, or vibration in response to a wireless signal.

The Mault reference is relied upon for allegedly disclosing a diagnostic computer system that is portable (allegedly disclosed at column 6, lines 13-20) and multi-functional (allegedly disclosed at column 6, lines 4-8).

The Hiltunen reference is relied upon for disclosing a cellular telephone (see paragraph 30), that includes a vibratory component that vibrates in response to a wireless signal, that allegedly is capable of vibrating at a plurality of frequencies (allegedly disclosed in FIG. 4), that allegedly includes a mode selector for selecting between a communications mode and a diagnostic mode (allegedly disclosed at paragraph 48), and for disclosing a probe projecting from a casing to transmit vibration (allegedly disclosed at paragraph 32).

The rationale for the rejection is that it would have been obvious to a person of ordinary skill in the art at the time the invention was made “to combine a diagnostic and a communication apparatus as taught by Mault to improve vibratory screening and

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diagnostic systems as disclosed by LaCourse et al. for the predictable result of having a functioning computer based diagnostic system that can be used as a portable communication device.”

It is respectfully submitted that the rejection is defective on its face because it does not include the Hiltunen reference in the rationale for the rejection.

As admitted by the Examiner, the primary reference (LaCourse et al.) does not disclose a portable multi-functional communication and diagnostic device that is selectively operable in either a wireless communications mode or a medical diagnostic mode. Further, the system described by LaCourse et al. does not disclose a device of the type claimed having an outer casing, a device as claimed having a mode selector, or a device as claimed that is capable of vibrating in response to a remote wireless signal.

The Mault reference does not overcome the multitude of deficiencies of the LaCourse et al. reference. Mault does not disclose a portable device that is operable in either a wireless communications mode or medical diagnostic mode. Rather, the Mault reference discloses an integrated calorie management system that includes, as one of the components of the system, a computing device 52 that can optionally include other functionalities or operating modes such as a wireless phone, voice recording or image capturing functionality; and which can be a portable computer, an electronic organizer, an “e-book”, a wireless phone, a pager, a wristwatch, a pedometer, or a desktop computer. There is not any apparent reason that the person of ordinary skill in the art would add a portable computer, an electronic organizer, an “e-book,” a wireless phone, a pager, a wristwatch, a pedometer or a desktop computer, as taught by Mault, to the medical diagnostic apparatus disclosed by LaCourse et al. Moreover, it is not apparent how the addition of a portable computer, an electronic organizer, an “e-book”, a wireless phone, a pager, a wristwatch, a pedometer, or a desktop computer to the medical diagnostic apparatus of LaCourse et al. would enhance the functionality or usefulness of the vibratory screening or diagnostic systems that are disclosed by LaCourse et al.

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If one were, for some non-apparent reason, to add a portable computer, an electronic organizer, an “e-book”, a wireless phone, a pager, a wristwatch, a pedometer, or a desktop computer to the medical diagnostic apparatus disclosed by LaCourse et al., the resulting agglomeration would not yield the claimed invention. Among the computing devices 52 disclosed by Mault, only the addition of a wireless telephone would result in an agglomeration that includes a portable wireless communications device. Mault only discloses the use of the computing device 52 for running health management software that calculates caloric intake, caloric expenditure, caloric balance and other information relating to a weight management program (see the abstract and column 7, lines 25-44 of Mault). Adding a wireless telephone capable of operating as a computing device for running health management software that calculates caloric intake, caloric expenditure, caloric balance and the like, to the diagnostic apparatus of LaCourse et al. would not have resulted in a portable device that is capable of operating in either a wireless communications mode or a medical diagnostic mode in which vibratory stimuli of a selected magnitude is generated in a multi-functional device and displayed on the device. Rather, the result would have been an agglomeration including a non-portable vibratory testing apparatus and a wireless communications device that is not physically or functionally related to the diagnostic apparatus.

The Hiltunen reference also does not overcome the deficiencies of the LaCourse et al. reference. The Hiltunen reference does not disclose a portable device that is operable in either a wireless communications mode or a medical diagnostic mode. Rather, the Hiltunen reference discloses a cellular telephone having a vibrating component that generates a vibration in response to a remote wireless signal. It is alleged that Hiltunen discloses (at paragraph 30) that the vibratory component can be operated in a second mode. Applicant cannot find any disclosure of this second mode of operation. It is only disclosed that vibration occurs “when a call is being received or when a message arrives.” These are both occasions associated with receipt of a wireless signal. There is not any suggestion that the vibrating component may be used in a medical diagnostic mode. The Hiltunen reference is also relied upon for allegedly disclosing (in FIG. 4) that the vibrating component can vibrate at a plurality of different frequencies. Applicant cannot find such

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disclosure in FIG. 4. Rather, FIG. 4 illustrates various signaling patterns in a coordinate system where the x-axis represents time and the y-axis represents amplitude (see paragraph 40). Hiltunen is also relied upon for disclosing (at paragraph 30) a mode selector “for selecting between the first and second modes.” This incorrectly implies that the mode selector 2 is used for selecting between different vibratory modes. As stated above, Hiltunen does not disclose operating the vibratory component in different modes. Further, Hiltunen expressly teaches that the alleged mode selector 2 is used for selecting from among an off position 4, a telephone receiving position 6 to indicate missing calls, a position 8 to retrieve the number of received but not yet read short messages, a position 10 to retrieve information about the number of received but not yet read and/or reviewed multi-media messages, and a position 12 to get information conveying the field strength of the next base station. There is not any suggestion for a mode selector for selecting between a first operational mode as a wireless communications device and a second operational mode as a portable medical diagnostic device. Finally, Hiltunen is also relied upon for allegedly disclosing (at paragraph 32) a probe projecting outwardly from the outer casing of the phone for transmitting vibration from the vibratory component.

There is not any explanation as to how or why a person of ordinary skill in the art would add the cellular telephone of Hiltunen, which is not disclosed to be useful for forming any type of medical diagnostic procedure, to the apparatus of LaCourse et al. or to the apparatus of LaCourse et al. as modified by Mault. Adding the cellular telephone of Mault and/or Hiltunen to the apparatus of LaCourse et al. merely results in an agglomeration of the apparatus of LaCourse et al. with one or perhaps two cellular telephones. It does not yield the claimed invention drawn to a portable multi-functional device having a mode selector for selectively operating in a wireless communications mode or a medical diagnostic mode, and for modulating the vibration amplitude of the vibratory component to diagnose and quantify neuropathy.

The invention takes advantage of the fact that many components of a portable wireless communications device such as a cellular telephone may be used with relatively minor modifications to achieve a multi-functional portable device that has substantially the same physical profile of a cellular telephone, but which is also capable of diagnosing and

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quantifying neuropathy. None of the prior art references disclose or recognize this possibility. As such, the prior art does not provide a teaching sufficient to suggest the desirability of the claimed invention to a person of ordinary skill in the art. Accordingly, the claims are patentable over the applied prior art, such that withdrawal of the rejection is appropriate.

Claims 31, 33, 35, 48, 50 and 59-61 stand rejected under 35 U.S.C. §103(a) as being unpatentable over LaCourse et al. in view of Hiltunen and Mault, and further in view of U.S. Patent No. 5, 931,793 (hereinafter referred to as "Laudadio").

It is respectfully submitted that dependent claims 31, 33, 35, 48, 50 and 59-61 are allowable for at least the reasons generally set forth above with respect to the corresponding independent claims 1, 28, 42 and 59.

Allowable Subject Matter

Applicant gratefully acknowledges that claims 62, 64 and 65 encompass allowable subject matter. However, in view of the above remarks, it is respectfully submitted that all pending claims are drawn to allowable subject matter.

CONCLUSION

In view of the above amendments and remarks, it is submitted that the application is in condition for allowance and notice of the same is earnestly solicited.

Respectfully submitted,

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